DOCUMENT RESUME

ED 264 174 SP 026 498

TITLE	Wisconsin Center for Education Research News. Summer 1984.
INSTITUTION	Wisconsin Center for Education Research, Madison.
PUB DATE	84
NOTE	13p.
PUB TYPE	Reports - Evaluative/Feasibility (142) -- Collected Works - Serials (022)
JOURNAL CIT	Wisconsin Center for Education Research News; Sum 1984
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Ability Grouping; *Academic Achievement; Elementary Secondary Education; Humanistic Education; Individual Development; *Research Utilization; *Student Employment; Theory Practice Relationship

ABSTRACT

This newsletter presents a critical view of some of the perils of translating research findings into classroom practice without careful examination of the human dimensions involved. The first issue discussed is ability grouping; it is pointed out that this practice does not necessarily increase academic achievement, particularly in the lower level achievement groups. Another issue discussed is the potential threat to human development and dignity by too much emphasis on training in basics and insistance on academic excellence to the detriment of a sense of self-worth and interest in the broader societal values on the part of the student. The problem of the impact of students holding jobs outside of school on their classroom performance is considered, and several research findings on the topic are cited. A brief article warns researchers that reform proposals need healthy skepticism and awareness of the realities of the classroom. The final article discusses the risks involved in imposing instructional computers on teachers. (JD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED264174

Wisconsin Center for Education Research
news

Summer 1984

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Ability Grouping Can Hurt Achievement

Ability grouping, one of the commonest tools American schools use to deal with student diversity, apparently depresses achievement of students assigned to low groups.

Of course students assigned to low ranking groups have lower achievement, skeptics respond—that's *why* they are assigned to those groups. But according to a new book, *The Social Context of Instruction: Group Organization and Group Processes*, there is evidence that simply being in the low group diminishes achievement.

The book is a collection of papers presented at a conference sponsored by the Wisconsin Center for Education Research and is edited by Penelope Peterson, University of Wisconsin-Madison, Louise Cherry Wilkinson, City University of New York, and Maureen Hallinan, University of Notre Dame. The book was published this year by Academic Press.

"In general, students in low tracks and ability groups are given fewer and poorer opportunities to learn than their peers in higher level groups," writes Hallinan in the book's summary. In low ranked groups, according to studies she cites, more time is given to administration and discipline and less to teaching, teachers spend less time on preparation, do a poorer job of teaching, present material at a slower pace, and use less interesting and less challenging material.

Additionally, there is more conversation about instruction between teachers and students and among students in higher level groups. Since that sort of exchange is believed to aid learning by helping students organize and assimilate material, lower ranked groups again come up short.

Other research has shown that student behavior is more disruptive in low tracks and ability groups than in higher level groups. That holds even when researchers control for student ability and achievement level, suggesting, Hallinan says, that students and teachers in low ranked groups develop behavioral standards more tolerant of inattention.

Group Influences on Behavior

The influence of group culture on student behavior is examined by Donna Eder and Diane Felmlee in their chapter, "The Development of Attention Norms in Ability Groups." After studying first grade reading groups they concluded that children in low ability groups were more likely to be inattentive than classmates in high groups and that the difference lay in group environment rather than individual ability. Children in high groups helped to focus the attention of other group members on reading tasks, but in low groups children often distracted their fellows. Teachers reinforced these norms by indicating with words and signals in the high groups that careful attention was expected. In low groups teachers actually spent more time on management, but were less effective. "Consequently," Eder and Felmlee write, "students most in need of a positive learning environment are being taught under much less favorable conditions than are bright, motivated students."

continued next page

SP 026498

Worse yet are the possible long term effects, they say. Students who are less attentive because they are assigned to a low group are likely to be seen by teachers as less able academically, classed as being where they belong, and perhaps condemned to that level for the rest of their academic lives.

One answer to the type casting that can happen in ability grouping and tracking is to use heterogeneous or mixed ability groups. But that too, Elizabeth Cohen reports in her chapter, "Talking and Working Together: Status, Interaction, and Learning," has its problems.

Cohen began with the hypothesis that students working together on a project learn better than students working in isolation. She wanted to see how that kind of classroom interaction is affected by status. Status was determined by asking students to rate their fellows on academic skills, athletic skills, and friendship.

To test her ideas in the classroom, Cohen used a complex thinking skills program that required her second, third, and fourth grade subjects to work independently at learning centers. Children moved to new locations after completing each center at their own speed, thus forming a frequently changing set of heterogeneous groups. They had been told to ask classmates for help when necessary *and* to help anyone who asked. Those instructions combined with the challenging material created the interaction Cohen wanted to study.

Rich Get Richer

She found that increased peer interaction did lead to increased learning. She also found that the children with higher status had more interaction and therefore disproportionately more help in learning.

"In other words," writes Cohen, "the rich get richer. This is the dilemma of using peer interaction; at the same time that it increases engagement and provides a strong potential for learning, it makes the status structure of the classroom salient and allows it to become the basis of the prestige and power order within the interacting classroom group."

Comments by Thomas Good and Susan Marshall in a research review chapter, "Do Students Learn More in Heterogeneous or Homogeneous Groups?," sum up the sense of the entire volume. They conclude that even allowing for some less than ideal studies the research in this area in general indicates "that tracking and ability grouping have few desireable consequences for low-ability students."

"Research indicates," they continue, "that in many classrooms teachers err by holding expectations that are too low, by pacing instruction too slowly, and by ignoring or underemphasizing the substantive aspects of tasks when instructing low groups."

Contributors to the book include Kathryn Hu-Pei Au, Kamehameha Early Educational Program, Kamehameha Educational Research Institute, Honolulu; Bruce G. Barnett, Far West Laboratory for Educational Research and Development, San Francisco; Steven T. Bossert, Far West Laboratory for Educational Research and Development, San Francisco; Elizabeth G. Cohen, School of Education, Stanford University; Robert Dreeben, Department of Education, University of Chicago; Donna Eder, Department of Sociology, Indiana University; Diane Felmlee, Department of Sociology, Indiana University; Nikola N. Filby, Far West Laboratory for Educational Research and Development, San Francisco; Thomas L. Good, Center for Research in Social Behavior, University of Missouri; Maureen Hallinan, Department of Sociology, University of Notre Dame; Alice J. Kawakami, Kamehameha Educational Research Institute, Honolulu; Cathy Moore Kenderski, Graduate School of Education, University of California, Los Angeles; Susan Marshall, Center for Research in Social Behavior, University of Missouri; Penelope Peterson, Center for Education Research, University of Wisconsin-Madison; James E. Rosenbaum, Department of Sociology, Northwestern University; Aage B. Sorensen, Department of Sociology and the Wisconsin Center for Education Research, University of Wisconsin; Francesca Spinelli, Department of Communication Sciences, Case Western Reserve University, Cleveland; Susan S. Stodolsky, Department of Education, University of Chicago; Susan R. Swing, Wisconsin Center for Education Research, University of Wisconsin; Noreen M. Webb, Graduate School of Education, University of California; Louise Cherry Wilkinson, Department of Educational Psychology, City University of New York.

The Social Context of Instruction: Group Organization and Group Processes is available from book dealers for $26.50.

Does the Pursuit of Excellence Threaten Human Dignity?

Imagine a society whose young people are well trained in the basics of mathematics, language, science, computers, and social studies, are orderly and disciplined, and whose work and study habits mirror the Protestant Ethic. Imagine a society concerned with those basic skills to the near exclusion of others.

The world's Gradgrinds might be pleased with such an arrangement, but Professor Fred Newmann would not be. In fact, he says such an instructional program assaults human dignity.

Some aspects of the current movement for excellence come uncomfortably close to that picture in the opinion of Newmann, a University of Wisconsin education professor, and his colleague Tom Kelly of John Carroll University. For instance, the strict academic curriculum proposed by the National Commission on Excellence in Education gives Newmann and Kelly pause since they know that although academic subjects are usually considered to be broadening, those subjects can also restrict students' exposure to human achievement.

The Commission's curriculum "offers few opportunities to develop manual craftsmanship, aesthetic sensitivities in music and art, physical coordination, skills of leadership, styles of thought used in design and engineering, or approaches to the care and nurturing of others," Newmann and Kelly write in "Human Dignity and Excellence in Education: Guidelines for Curriculum Policy," a paper prepared for the National Institute of Education. Depriving a student of the chance to master alternative forms of competence is just one of many actual and potential infringements on human dignity the authors see in the Commission report and elsewhere in the excellence movement.

Fundamental Goal is Dignity

The Newmann-Kelly line of thought rests on the assumption that "the most fundamental educational goal of public education in a democracy should be the promotion of equal human dignity for all students."

Dignity, they say, means individuality, social attachment, integration, and material well-being for each person.

Individuality they define as the liberty to express ideas, interests, personality, and temperament that differ from other peoples'; social attachment as bonds to individuals and groups; and integration as a sense of order, sequence, and continuity in experience and knowledge.

Material well-being—essentially food, clothes, shelter, health care, and physical security—is complicated by the fact that in America income is at least partly related to level of education. Schools are pressured to pass all students, Newmann and Kelly say, because to deny credentials is to deny some degree of material well-being.

All four elements of dignity are threatened by the recommendations of the National Commission, according to Newmann and Kelly. The Commission emphasis on credits, grades, and test scores, for example, contributes to the long-standing problem of "inauthentic standards," in which students are gauged by standards little related to real skills. Emphasis on credits and grades rather than on demonstrating competence by speaking, writing letters or reports, performing in the arts or athletics, or building something threatens a learner's individuality by denying opportunities to develop valued competences. Fragmented learning, such as memorizing isolated dates, definitions, and authors and titles, frustrates the learner's quest for integration by demanding behavior unrelated to constructive purposes.

What Kind of Excellence?

Another problem Newmann and Kelly see in the Commission report is the lack of attention given to distribution of resources. Is the excellence we are striving for excellence in the

continued next page

sense of distinguished achievement for a few or common adequacy for many? Should a greater share of educational resources be devoted to brighter or slower students?

"If the policy is to promote exceptional achievement, schooling should favor the development of fast learners, because any given investment in them will yield higher achievements," they write. "If excellence, however, is embedded in a commitment to equal opportunity for common adequacy, then we must pursue a policy of attaining a meaningful level of achievement for each student."

Newmann and Kelly believe that a right to develop personal competence derives from the right to equal dignity and that the fairest way to distribute resources is to give the larger share to slower students, thus increasing the general level of common adequacy. (A necessary corollary is that fast learners get a proportionately smaller share of the resources.)

The reports of the National Commission and other bodies make little mention of the needs of disadvantaged students; they are concerned mostly with defining new standards, not with how slow learners will get equal opportunity to meet them. According to Newmann and Kelly, when slow learners do not get a greater share of the resources, their individuality and material well-being are jeopardized.

Finally, Newmann and Kelly express concern for the Commission's handling of the American predisposition to "an excess of individualism...and a corresponding lack of cooperative behavior and social responsibility." By promoting the pursuit of excellence within a social system where that pursuit is largely oriented toward personal aggrandizement, the new standards emphasized by the Commission will lead to stronger links between individuals' ranked achievement and the worth others assign them. "The Commission's standards for curriculum fail to address the challenge of enhancing social attachment through families, neighborhoods, and collective traditions," thereby, the authors write, threatening human dignity by potentially limiting social attachment and integration.

Excellence Can Serve Dignity

Although the excellence movement can threaten human dignity, it can also serve the cause of dignity if its negative side-effects are recognized and minimized. Newmann and Kelly outline activities that local, state, and federal policy makers should promote to make the most of the resurgent interest in education.

First, students should be encouraged to pursue diverse forms of competence so they can make better choices about using their own talents. Newmann and Kelly suggest a broad program that requires—beside a solid grounding in academic subjects—at least two semesters work in the arts, coordination and control of the body, and technical arts such as auto mechanics, computer programming, and home building. To facilitate such a program, Newmann and Kelly call for other structural changes such as reform of tracking.

Second, special instructional and personal support services need to be arranged to protect the dignity of low achievers, slow learners, and others likely to fail to meet the new standards proposed by the Commission. Specifically, they mention ability grouping, individualized instruction, alternative programs, and a climate of commitment and care for all students.

Third, schools should balance a preoccupation with individual achievement by supporting social attachment. That doesn't mean, the authors say, trying to duplicate the social life of churches and voluntary associations, but instead promoting shared activities natural to schools—dances, rallies, outings, plays, athletic and academic competitions, community service activities, and so on. Activities should bring together students who might otherwise be isolated from each other.

Fourth, they suggest that schools can integrate the learning process through interdisciplinary teaching, major student projects that require individuals or teams to organize knowledge from diverse sources to solve a problem, and community-based learning that links students to the real adult world.

Finally, Newmann and Kelly believe that both students and parents should be empowered to influence school policy, procedures, and personnel. It is not only human dignity that demands such influence, but also the right of citizens to hold public institutions accountable.

Summing up, the authors say, "Schools, like other public institutions, have missions more specifically defined than the promotion of dignity...[but] at a minimum, they should operate in ways that avoid assaults to the dignity of people."

"By emphasizing possible abuses of the current pursuit of excellence in education, we do not intend to neglect the potential for positive outcomes, for the general goal of maintaining high standards of performance is consistent with the ideal of human dignity. The threats to material well-being, individuality, social attachment, and integration will vary considerably, depending upon how excellence policies are implemented. The challenge for policy makers in legislative halls and schools is to devise policies that minimize threats and maximize the gains to human dignity."

Student Jobs Affect Teaching and Learning

As high school students increasingly take part-time jobs, their interest in school work declines. Teachers react by watering down content and easing assignments, making classes still less interesting.

The process, which may begin with economic uncertainties pushing students into the workplace, then feeds on itself.

That picture is painted by Linda McNeil, a senior research associate in the Department of Education at Rice University, Houston, who did a series of intensive studies of four middle class high schools in southern Wisconsin. She completed one of the studies while a post doctoral fellow at the Wisconsin Center for Education Research.

McNeil observed concern among teachers that because of outside jobs, many students were unable to complete assignments, were sleepy during class, and were selecting easier electives instead of taking advanced math, science, or foreign language courses. Further, she reports, "teachers often felt frustrated about the inability to organize a class lesson around a homework assignment because assignments often did not come in on time, and few students had time to do extended reading, library work, or projects." Some teachers responded to this perception by lowering their expectations of students. That not only demoralized the teachers, McNeil reports, but made school more boring and less demanding for students who, as a result, sometimes increased their work hours.

That was what McNeil found to be the teachers' perception. To find out if students saw things the same way she surveyed nearly 1,600 juniors and seniors in the four schools about their school and work habits.

Most Students Worked

Almost 60 percent of the students worked at the time of the survey, and most nonworkers were seeking jobs, so that overall 82 percent of the students were either working or looking for work. On top of that another 14 percent had worked during the past school year. Of the working students, 23 percent worked under 10 hours a week, and 48 percent worked between 10 and 20 hours. About 15 percent worked 21 to 25 hours, and 7 percent worked over 30 hours a week.

Three job types accounted for most of the working students: 41 percent worked in food service, 18 percent in retailing, and 7 percent in clerical positions. About two-thirds of the students earned between $3 and 3.50 an hour.

Overall, McNeil found that students who worked had slightly lower family incomes and grades, but the differences from nonworking students were not dramatic. A quarter of the working students had at least a B^{s} average, for example, compared to a third of the nonworkers.

Students used the bulk of the money they earned for clothes, gifts, major purchases such as stereos, and leisure activities. About half the working students wanted money for a car. Few seemed to be saving for college and less than a third said contributing to family support was an important reason for work.

McNeil's teachers viewed student economic habits with some distress. Their feelings are mirrored by a recent report from the University of Michigan's Institute for Social Research, which says that high school students working more than 15 hours a week risk "premature affluence"—having few economic responsibilities to balance a relatively large amount of casual spending money.

The conflict teachers felt between school and student jobs was not shared by students, although students did say work interfered with social and leisure time activities. Most students said they spent little time on homework because teachers assigned little outside reading, only brief writing assignments, if any, and rarely asked them to come prepared for discussions or presentations. Whether the student had a job or not made little difference in studying time: Only about 20 percent of working students claimed to spend more than an hour a day on homework, and for nonworking students the equivalent figure is only about 23 percent.

On the other hand, 24 percent of the

continued next page

students said work might hurt their school performance in preparing for tests, and 34 percent said working might hurt their grades.

Although many teachers felt they altered their teaching to adjust to student jobs, most students did not see it that way. Two-thirds of the students said that teachers "never" reduced the number of routine assignments or made assignments easier because of student work. Students also said that teachers rarely asked them to relate their jobs to coursework. More than 60 percent of students reported that in science, social studies, arts, and foreign language classes, for instance, teachers "never" related school work and outside jobs. That, says McNeil, "seems to be an incredible loss of teaching opportunity."

Teacher, Student Roles Redefined

"The movement of students of all ability levels, of varied interests and financial statuses toward increasing work hours rather than toward increased effort at school," McNeil writes, seems to indicate a "gradual redefinition of roles."

"Teachers pick up the cue that they have less influence over students' time and goals and in reaction restructure lessons in a way that makes passing grades possible without extended outside assignments. Students see that course work is not incredibly demanding but do not see that this is a change from the past and so think teachers are unaware of or not interested in their jobs."

What's to be done about this "cycle of lowering expectations?" "For one thing," McNeil says, "teachers could demand more of students; this current wisdom of educational reform has some merit if taken in a context of broader school reform which attends to contents as well as mechanical requirements of schooling. Far better, teachers could seize upon work experiences as teaching opportunities rather than as inhibitions to their ability to teach and students' ability to learn."

This research is reported in *Lowering Expectations: The Impact of Student Employment on Classroom Knowledge*. Copies are available for $7.00 from the Center Document Service, Wisconsin Center for Education Research, 1025 W. Johnson Street, Madison, WI 53706. Price includes shipping. Please include check or purchase order with orders.

A related article by McNeil, "Defensive Teaching and Classroom Knowledge," shows teachers' simplification of content to be rooted in attempts to maintain order and authority. That article appears in *Ideology and Practice in Schooling*, edited by Apple and Weis and published in 1983 by Temple University Press.

Recent Publications of Center Researchers

These scholarly publications of the Center's faculty and staff reflect the range of their recent work. Copies of these publications are not available from the Center but may be found in libraries or by contacting the publishers.

Allen, V.L., & Van de Vliert, E. *Role transitions: Explanations and explorations*. Plenum Press, 1984.

Carpenter, T.P. Critical problems in mathematics education: The search for the Holy Grail. *Investigations in Mathematics Education*, 1983, *16*, iii-vi.

Carpenter, T.P., Lindquist, M.M., Matthews, W., & Silver, E.A. *The third national mathematics assessment results, trends, and issues*. Denver: National Assessment of Educational Progress, 1983.

Hollingsworth, E., Lufler, F., & Clune, W.H. *Order and autonomy: An empirical study of school discipline*. Praeger, 1983.

Donnellan, A.M., & Mirenda, P.L. A model for analyzing instructional components to facilitate generalization for severely handicapped students. *Journal of Special Education*, 1983, *17*, 317-331.

Frohreich, L.E. *The school budgeting cycle*. Wisconsin Association of School Boards, 1983.

Hallinan, M.T. Sociology of education: The state of the art. In J. Ballantine (Ed.), *Sociology of education an integrated reader*. Palo Alto, CA: Mayfield Publishing, 1984.

Johnson, D.D. Expanding vocabulary through classification. In J. Baumann & D. Johnson (Eds.), *Reading instruction and the beginning teacher*. Burgess Press, 1984.

Mare, R.D., & Winslip,C. The paradox of learning racial inequity and joblessness among black youth: Enrollment, enlistment and employment, 1964-1981. *American Sociological Review*, 1984, *49*, 39-255.

Marrett, C.B., & Gates, H. Male-female enrollment across mathematics tracks in predominantly black high schools. *Journal for Research in Math Education, 1983, 14*, 113-118.

Reform Proposals Need Healthy Skepticism, Warn Researchers

A blind adoption of the school reforms recommended by the National Commission on Excellence in Education would lead to little improvement and perhaps to a damaging disenchantment with reform, according to two Center researchers.

Writing in the fall 1983 issue of *Contemporary Education Review*, Lawrence Stedman and Marshall Smith claim that the National Commission and other recent school reform panels presented simplistic recommendations, ignored recent research findings on effective ways of improving schools, and produced polemical rather than well-reasoned documents. Stedman, a doctoral student in educational policy studies at the University of Wisconsin-Madison, and Smith, the Center director, discuss reform proposals of the Education Commission of the States, the College Board, and the Twentieth Century Fund, in addition to the National Commission report.

"Rather than carefully marshalling facts to prove their case, [the commissions] present a litany of charges without examining the veracity of their evidence or its sources," the authors write. "By presenting their material starkly, and often eloquently, the commissions hoped to jar the public into action, and to a great extent have been successful."

But, warn Stedman and Smith, while there are indeed areas of school achievement that legitimately deserve concern, data presented by the reform panels to make that point cannot always be taken at face value. For example, the National Commission reported that a survey found 13 percent of 17-year-olds to be functionally illiterate in 1974 and again in 1975, but fails to mention that that was an improvement on what the survey found in 1971.

Longer School Year

The National Commission's recommendation to boost achievement by lengthening the school year, like many recommendations of the reform panels, was presented without careful consideration of the implications, according to the authors.

"Lengthening the school year to 220 days at first glance seems a reasonable suggestion, but there are such practical difficulties ignored by the Commission that the idea is actually unworkable."

"First, substantial new curriculum material would have to be developed. Second, it is possible that not all systems would lengthen their years to the same extent, and what would happen in our mobile society as students moved from one district to another? Third, are teachers to be paid more? Where will the funds come from? How will teachers' unions view extending the school year by 40 days? Fourth, could the longer year increase student alienation and actually hamper performance?"

Furthermore, Stedman and Smith point out, recommendations to increase time in the classroom ignore recent research indicating that "quantity is a relatively minor variable in the production of achievement compared to quality, i.e., how the time is used." They say attention would better be given to what content is covered in a class, how the classroom is organized, and to teaching techniques that make maximum use of available time.

Commission calls for curriculum reform come under similar criticism from the authors. While agreeing with many of the proposed new curriculum goals, Stedman and Smith point out that "few high school math, science, or social studies teachers would find anything novel in these descriptions. . . . Many of these are also the current goals of contemporary secondary schooling." But since we have not satisfactorily taught students under the old goals, "restating the goals and calling for increased academic time without changing the teaching method and instructional climate contributes little." What we need is to find out how to "ensure that classes are organized so students acquire these skills."

Top-Down Reform

The commissions also ignore the decentralized nature of American education, they say. "The 'top-down' flavor of their recommenda-

continued next page

Financial Aid Helps Indians Complete College

Only six percent of American Indians complete college—about four times fewer than the number of whites who finish. But colleges could increase the number of Indian graduates by offering improved support services, particularly assistance in getting financial aid.

That conclusion comes from a study of what Wisconsin Indian students and graduates think contributed to their success in college. Having financial aid headed a list of five factors most important to completing college.

The study was completed by Janet Goulet Wilson in 1983 while a postdoctoral fellow at the Wisconsin Center for Education Research. Wilson, herself part Cree, coordinates the American Indian Program at the University of Wisconsin-Eau Claire.

Wilson surveyed over 300 Wisconsin Indians who were currently enrolled as upper level or graduate students, or who had previously graduated. She did personal follow-up interviews with nearly 200 of those she surveyed.

The financial aid Wilson's respondents identified as important to their success could be federal grants, scholarships for Indians, GI Bill, tribal scholarships, loans, or income from part-time work. The sort of aid was not as important as the fact that some kind of assistance was available and that the student could find out about it. That's where effective college support services come in.

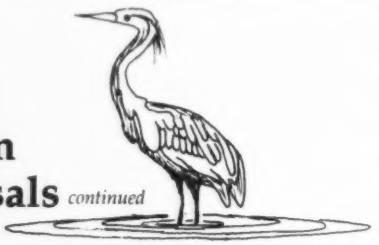
Besides access to financial aid, other factors Wilson identified as helping Indians finish college were

- family support, particularly from an adult who understood the value of a college education and gave encouragement
- a strong personal goal and realization that college was needed to attain the goal
- the determination to finish, "no matter what"
- enough intelligence to handle the work

Wilson chose to investigate factors that help Indians complete college rather than factors that hinder them because she says the positive side of the picture has been too much ignored. Although she warns against disregarding Indians' social and economic problems, Wilson says that research on success is needed because it can encourage further successes. She includes composite profiles of Indians who have or are successfully completing college and, based on information gathered in the interviews, suggests what parents, tribes, colleges, and students themselves can do to help more Indians complete college.

Wilson's 150-page report, "Wisconsin Indian Opinions of Factors Which Contribute to the Completion of College Degrees," is available for $9.00 a copy from the Center Document Service, Wisconsin Center for Education Research, 1025 W. Johnson St., Madison, WI 53706. Shipping is included. Check or purchase order should accompany orders.

Reform Proposals *continued*



tions appears more in line with West European systems, in which the national government controls education."

One problem with that approach, the authors write, is that those making the recommendations have no responsibility if the ideas fail since it is local school staff not the commissioners who must implement the ideas.

Another problem with "top-down" school reform, according to the authors, is that it ignores "the growing conviction among effective schools researchers that leadership must come from school-site management. The staff of schools must be given the responsibility to construct their own reform efforts, to develop their own plans, and to change their own programs, albeit within a framework established by local, state, and federal government."

In spite of their criticisms, Stedman and Smith believe the commissions may improve education through their calls for increased academic requirements, curriculum reform, computer competency, and career ladders for teachers. Perhaps the greatest achievement of the reform panels has been "in making the educational crisis a public concern. The current focus on education increases the likelihood that successful reforms can be made."

New School Law Handbook Explains Rights, Responsibilities

What do these incidents have in common?

- an eighth grade girl seeking a place on the boys' tennis team
- a student who wants to play first trumpet in the school band
- parents who prefer to teach their children at home

Answer: each situation resulted in a lawsuit against a public school system.

At a time when lawsuits against schools are commonplace, teachers and administrators need to understand basic school law to protect both themselves and their students. A new book, *Student Rights and Responsibilities: A Handbook on School Law in Wisconsin*, can help.

The 180-page book is a well-organized, comprehensive, and clearly-written guide to Wisconsin and federal laws applicable to public schooling. It includes chapters on free speech, religion, search and seizure, student discipline, school sports and clubs, attendance, equal educational opportunities, and handicapped children.

The book was written by Henry Lufler, assistant dean at the University of Wisconsin-Madison School of Education, and Blanche Kushner, a staff attorney at the Youth Policy and Law Center in Madison. It was published by the Wisconsin Center for Education Research.

The book was prompted by educators seeking legal advice—often, Lufler says, too late. "Invariably, questions about a student search or another problem came after the school had already acted. By that time, the school may have already done the wrong thing, or opened itself up for a lawsuit by not following procedures outlined in the statutes."

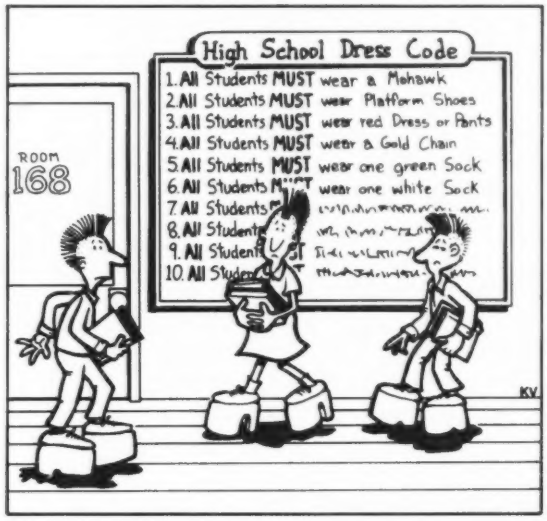
"This handbook is designed to familiarize Wisconsin educators with legal issues and procedures before problems arise," Lufler said.

Reviewers praise the book highly. Madison attorney Raymond Dunne, formerly legal counsel to the State Superintendent of Public Instruction, found the work "meets the crying need for a single resource addressing the myriad legal problems encountered in the daily operation of our schools." Priscilla Ruth MacDougall, staff counsel to the Wisconsin Education Association Council, called it "a thoroughly researched text on virtually all areas of student rights which every teacher and school administrator should read and consult regularly."

Stephen Willson, principal of Portage High School, said the handbook was "a well-organized and clearly-written discussion of today's most common legal concerns." Ollie Berge, executive director of the Wisconsin Association of School District Administrators said, "The availability of a law book of this nature ... would certainly be a great asset for school district administrators."

Officials from the school district where the girl wanted to play tennis on the boys' team might have saved much trouble if they'd had a copy of the book. It reports that girls can play on the boys' team, if they make it, so long as there is no girls' team in the same sport. The issues raised by the trumpet player, the book reports, were so minor that the case was dismissed by a federal court. The decision in the third case was that parents can teach their children at home but the curriculum must be reviewed and other approvals obtained. Details of those cases can be found in the handbook.

Copies of *Student Rights and Responsibilities: A Handbook on School Law in Wisconsin* are available for $14.75 including shipping from Center Document Service, Wisconsin Center for Education Research, 1025 W. Johnson St., Madison, WI 53706. Please include check or purchase order payable to Center Document Service. Ten copies or more can be purchased for $12 each, and additional price reductions can be negotiated if more than 20 copies are bought.


High School Dress Code
1. All Students MUST wear a Mohawk
2. All Students MUST wear Platform Shoes
3. All Students MUST wear red Dress or Pants
4. All Students MUST wear a Gold Chain
5. All Students MUST wear one green Sock
6. All Students MUST wear one white Sock
ROOM 168
KV

Classroom Culture Likely

How computers are used in the classroom will have more to do with the classroom than the computer, according to Marianne Amarel of the Educational Testing Service.

Classrooms—"these durable organizational forms"—have molded many educational innovations to their own contours, Amarel says, and those seeking to incorporate computers into the curriculum "will at their own peril underestimate the hardiness of classrooms."

Amarel presents her thoughts on the social microcosm of the classroom in "The Classroom: An Instructional Setting for Teachers, Students, and the Computer," a chapter in *Classroom Computers and Cognitive Science*, a new book published by Academic Press. The book is edited by Alex Wilkinson, formerly of the University of Wisconsin-Madison psychology department and now at Bell Laboratories, and is based on papers presented at a scholarly conference sponsored by the Wisconsin Center for Education Research.

Amarel cites an evaluation of the 1970s PLATO Elementary Mathematics and Reading Demonstration in which over 1,000 students in 40 classrooms had access to about 100 interactive terminals for two years.

"By far the most significant finding of the evaluation," she writes, "was the powerful effect teachers had on the course and outcome of the implementation. The impact of the courseware was moderated not by mystifying or elusive factors, but by the teachers' decisions about such commonplace mechanisms as the schedules that controlled access to the terminals, the integration of the computerized lessons with ongoing instruction, and the allocation of their own time to classroom activities."

Curriculum developers interested in introducing computers into instructional activities will have to keep in mind, Amarel says, that "the germane questions about educational innovations concern their compatibility with classroom ecology, rather than the adaptability of the classroom to the needs of the innovation."

Computers and Writing

Another question which gets a good deal of attention in the book is how computers can be used to improve verbal communication. Andee Rubin, a software developer from Bolt Beranek and Newman of Cambridge, Massachusetts, described a program she worked on that helps children learn, among other things, the logical flow of narrative. Development of the program, Story Maker, was influenced by research findings indicating that when a task becomes too complex, children will concentrate on lower level processes that they can handle. Thus decoding, spelling, and handwriting often get more attention in writing than higher level processes. Story Maker aims to minimize that by focusing attention on the higher level elements. The child guides the direction of a story by choosing from a series of structured options presented by the computer. Choices made early in the story-writing process limit options in the story's later direction, so that the child learns there is a logical connection between what is said at Point A in the narrative and what is said at Point B.

Additional evidence that computers can help improve writing skills is reported by James Levin and his associates from the University of California, San Diego. For four months in 1981, they used an easily learned word processing program called Writer's Assistant in a third and fourth grade classroom, giving the children various exercises and incentives to write, letting them compose directly at the computer's keyboard. Children particularly liked the speed and mechanical ease (e.g., mistakes needn't be erased) of the system. Comparisons of before and after writing samples showed that students in the experimental class wrote longer samples (the average number of words increased from 45 to 74) with improved quality (using blind grading on a four-point scale, the class score went from 2.00 to 3.09) after the exercise. The control classrooms had essentially no change in their scores.

Computer Literacy

A different issue addressed indirectly in the book is the lack of agreement on what computer literacy means. Being computer literate can mean anything from having the ability to program a computer to simply being able to run the machine. According to Wilkinson in his introductory chapter written with Center staff member Janice Patterson, educators could deal more easily with computer literacy as ability to run the machine. If programming ability is expected for literacy, cognitive psychologists will have to find out (so they can tell teachers) "how programming is learned, what languages are best or easiest to learn, and what knowledge a student acquires by learning to program." T.R.G. Green, a psychologist from the University of Sheffield, England, discusses some of those questions in a chapter titled "Learning Big and Little Programm-

to Mold Computer Use

ing Languages." That chapter, according to Wilkinson and Patterson, "offers a sobering perspective for the practitioner who might otherwise accept, without critical analysis, the injunction that students ought to become programmers."

Other Issues

Other issues that Wilkinson and Patterson raise are the differing hardware needs of curriculum designers and teachers, the role of teachers in introducing computers to the classroom and the role of inservice in introducing computers to teachers, and difficulties in evaluating computer courseware.

The overall sense of the book, even considering the warnings that much is still to be discovered about how the human mind learns in a computer environment and that there are risks in imposing instructional computers on teachers, is that cognitive scientists and educators working together can fulfill the potential of classroom computing.

Additional contributors to the book include Marcia J. Boruta, University of California, San Diego; Robin S. Chapman, University of Wisconsin-Madison; Christine Dollaghan, University of Montana; Daniel B. Kaye, University of California, Los Angeles; O. T. Kenworthy, University of Wisconsin-Madison; Jill H. Larkin, Carnegie-Mellon University; Alan M. Lesgold, University of Pittsburgh; Jon F. Miller, University of Wisconsin-Madison; Charles A. Perfetti, Univerity of Pittsburgh; Janet S. Powell, Yale University; Robert J. Sternberg, Yale University; Mary T. Vasconcellos, University of California, San Diego; and Richard L. Venezky, University of Delaware.

Copies of *Classroom Computers and Cognitive Science* are available from book dealers for $28.00.

Center Team Studies New Computer Uses

A Center study team is exploring new uses for microcomputers in education research and in schools. In the long run they hope to develop a conceptual framework to incorporate microcomputers in research on problem solving skills in math and science and for work in vocabulary development, but initially they are looking at innovative applications of hardware.

Under the direction of professor W. Patrick Dickson graduate assistants Mark Gillingham and Virginia Neal have put together what they call a "multimedia microcomputer system" that consists of an Apple IIe computer, a Pioneer VP1000 laser videodisc player, a random access slide projector, a voice synthesizer through which the computer can talk, and a gadget that lets the computer respond to spoken commands. The various pieces were bought separately for between $5,000 and $6,000 and then, with a good deal of effort, rigged to work together. They hope to add a random access videotape player soon.

The various parts of the system add up to much flexibility. The 54,000 images stored on the videodiscs, for instance, can be quickly retrieved in any order and can be played as either still photos or motion pictures. The voice recognition device that lets the computer react to spoken commands will work with any software and can be set up to work in any language. Similarly, the speaking device can pronounce foreign words if they are first given to the computer in English spellings.

That sort of flexibility makes this system ideal for working with handicapped children who can't manipulate a keyboard, non-English speakers, and children (or adults) who can't read, and the project is currently considering some small learning experiments with such children.

Dickson and his assistants have described the system's components and possible uses in a short article titled "A Low-Cost Multimedia Microcomputer System for Educational Research and Development." It appeared in the August, 1984, issue of *Educational Technology*.

Recent Research Reports

These selected scholarly reports of current Center research may be purchased from the Center's document sales service (except as noted). Single copies of the abstract of any paper are free from the Center dissemination office. To purchase papers, send check or purchase order to Document Service, 1025 W. Johnson St., Madison, WI 53706. Prices, which are subject to change, include shipping and handling. Allow six to eight weeks for delivery. Foreign orders must be prepaid in U.S. funds and will be shipped surface mail.

Carpenter, Thomas P. and others, *A Review of Research on Addition and Subtraction.* Working Paper 330. 173 pages. $11.00

This paper reviews research on how children acquire basic addition and subtraction concepts. It begins with an analysis of major theories of the development of basic number concepts and then looks at studies of basic concepts related to learning addition and subtraction. Research on how children solve symbolic addition and subtraction problems and word problems is reviewed in separate sections. The authors conclude that we know a good deal about how children learn addition and subtraction, but that there is not a clear picture of how to use that knowledge to design better instruction.

Johnson, D.D., & others, *An Investigation of the Effectiveness of Semantic Mapping and Semantic Feature Analysis with Intermediate Grade Level Children.* Program Report 83-3. 132 pages. $9.00

Semantic mapping and semantic feature analysis are ways of teaching vocabulary by relating the new words to children's existing knowledge. This study compared use of those methods to the traditional learning from context method in 36 4th, 5th, and 6th grade classrooms. The semantic methods proved superior to the context method.

Wisconsin Center for Education Research NEWS is published by the Wisconsin Center for Education Research, 1025 W. Johnson St., Madison, WI 53706. The Center is part of the School of Education, University of Wisconsin-Madison, and is supported in part by the National Institute of Education, Department of Education, under grant number NIE-G-84-0008. Opinions expressed do not necessarily reflect views of NIE, the U.S. government, or the University of Wisconsin. Inquiries about *NEWS* should be directed to Laurence Weber, editor. Material in this publication may be reproduced without permission if the source is identified.

Wisconsin Center for Education Research

news

1025 West Johnson Street, Madison, Wisconsin 53706

ADDRESS CORRECTION REQUESTED

Non-Profit Organization
U.S. Postage
PAID
Madison, Wisconsin
Permit No. 1622

Ability Grouping and Tracking....1

School Reform and Excellence.....3

Computers and Learning.....10